

RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named
Inventor : David D. Koester et al.

Appln. No.: 09/751,669

Filed : December 29, 2000

For : MACHINING ACTUATOR PERIPHERY
TO REDUCE RESONANCE
VARIATION

Docket No.: S01.12-0697

Group Art Unit: 2652

Examiner: Tianjie
Chen

AMENDMENT AFTER FINAL

I HEREBY CERTIFY THAT THIS PAPER IS BEING
SENT BY U.S. MAIL, FIRST CLASS, TO THE
ASSISTANT COMMISSIONER FOR PATENTS,
WASHINGTON, D.C. 20231, THIS

14 DAY OF March, 2003

Don D. B.
PATENT ATTORNEY.

Sir:

This is in response to the Office Action dated January 14, 2003 in which claims 13 and 17-21 were rejected. The rejection was made final.

I. CONSIDERATION OF REFERENCES CITED IN PTO-1449

Enclosed is a copy of Applicants' form PTO-1449 returned with the first Office Action indicating the references cited on the form were considered July 2, 2002. However, the Examiner's initials were not placed next to each reference. Applicants respectfully request a further copy of the form with each reference initialed by the Examiner.

A similar request was made in the Amendment filed October 8, 2002 but received no response in the next Office Action.

II. REJECTION OF CLAIM 13 UNDER §102(e)

Claim 13 was rejected under §102(e) as being anticipated by Prater et al., U.S. Patent No. 6,151,198.

-2-

A. The Office Action Mischaracterizes Prater et al.

With regard to claim 13, the Office Action inaccurately states that, "Prater et al shows an actuator 11 (Fig, 4) to be used in a disc drive, with machined external peripheral surface extending along an entire periphery of the actuator and including a desired profile dimension entirely defined by the machined external peripheral surface (Column 3, 3, lines 65-67)."

Prater et al. does not disclose an actuator with a machined external peripheral surface extending along an entire periphery of the actuator or a desired profile dimension entirely defined by the machined external peripheral surface, as required by claim 13.

The citation referred to by the Examiner simply states that the actuator has an arm, "capable of being machined to include desired features." This statement defines a property of the material -- that is capable of being machined. Also, reference to "desired features" implies individual elements on the actuator not an entire periphery. Nowhere does Prater et al. teach or suggest that the entire periphery of the actuator comprises a machined surface that entirely defines a desired profile dimension. Therefore, the above-statement in the Office Action regarding the Prater et al. disclosure is not supported by the reference and is inaccurate.

B. "Machined External Surface" Is A Structural Element, Not A Product-By-Process Element.

Claim 13 requires the actuator to have a "machined external peripheral surface." The Office Action suggests that the term "machined" is a process limitation. Therefore, no weight was given to this term when determining patentability of the claim.

The term "machined" is an adjective that modifies the noun "surface". A "machined external peripheral surface" can clearly be identified by inspection of the surface and its properties. For example, a visual inspection would easily

-3-

distinguish a cast surface from a machined surface. A "machined external surface" is therefore a property of the product. This phrase adds a definite structural limitation to claim 1 that bears patentable weight within the claim.

Applicants therefore respectfully request that the rejection of claim 13 under §102(e) be withdrawn since Prater et al. does not support a §102 rejection.

III. REJECTION OF CLAIMS 17 AND 18 UNDER §103(a)

Claims 17 and 18 were rejected under §103(a) as being unpatentable over Prater et al. in view of Brar et al., U.S. Patent No. 5,156,919.

Claims 17 and 18 are dependent claims that depend from independent claim 13. Claims 17 and 18 specify tolerances of the machined external peripheral surface relative to the desired profile dimension.

The Office Action acknowledges that Prater et al. is silent on the tolerance of the dimension of the surface but suggests this tolerance would be obvious in view of Brar et al. However, as discussed above, Prater et al. fail to teach or suggest a machined external surface extending along an entire periphery of an actuator. Therefore even if the teachings of Brar et al. were combined with those of Prater et al., the resulting combination would still fail to teach or suggest all of the elements of dependent claims 17 and 18, including the elements of independent claim 13. Accordingly, Applicants respectfully request that the rejection of claims 17 and 18 under §103(a) be withdrawn.

IV. REJECTION OF CLAIM 19-21 UNDER §103(a)

Claims 19-21 were rejected under §103(a) as being unpatentable over Prater et al. in view of Brar et al. and Nikolovski, U.S. Patent No. 6,269,700.

Claim 19 is an independent claim including actuator means having a machined external peripheral surface with a desired

-4-

profile dimension. The desired profile dimension is "defined for limiting variations in resonance characteristics of the actuator means."

Claim 20 requires that machined external peripheral surface to extend along an entire periphery of the actuator means such that the desired profile dimension is defined entirely by the machined peripheral surface. Claim 21 provides a tolerance of 0.005 inches or less.

The Office Action acknowledges that neither Prater et al. nor Brar et al. teach or suggest an actuator having a machined external peripheral surface with a profile dimension that is defined for limiting variations in resonance characteristics of the actuator. The Office Action suggests that this would be obvious in view of Nikolovski, which suggests that in an ultrasonic emitter/receiver having a focusing spike, resonant frequencies are determined by the dimensions of the spike and the speed of the ultrasonic waves in the spike. Nikolovski does not suggest an actuator in a disc drive could have a machined peripheral surface with a dimension that is defined for limiting resonance variations in the actuator.

Therefore, even if the teaching of Nikolovski were combined with that of Prater and Brar, the resulting combination would still fail to teach or suggest the invention recited in claim 19. With respect to dependent claim 20, none of the references teach or suggest an actuator in which the machined external peripheral surface extends along an entire periphery along the actuator such that the desired profile dimension is defined entirely by the machined peripheral surface. Accordingly, the Applicants respectfully request that the rejection of claims 19-21 under §103(a) be withdrawn.

-5-

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,
WESTMAN, CHAMPLIN & KELLY, P.A.

By: David D. Brush
David D. Brush, Reg. No. 34,557
Suite 1600 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 339-3312

DDB:tkj

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named
Inventor : David D. Koester et al.

Appln. No.: 09/751,669

Filed : December 29, 2000

For : MACHINING ACTUATOR PERIPHERY
TO REDUCE RESONANCE
VARIATION

Group Art Unit: 2652

Examiner: Tianjie
Chen

Docket No.: S01.12-0697

CERTIFICATION OF TELEFACSIMILE TRANSMISSION

Commissioner for Patents
Washington, D.C. 20231

1(703) 746-6037

Sir:

Attached is a copy of the Amendment After Final that was originally filed on March 14, 2003. Also attached is a copy of the return postcard indicating that the Amendment was received at the Patent Office on March 20, 2003. The Examiner had indicated that the Amendment has not yet reached the file. Accordingly, Applicants are enclosing the second copy.

WESTMAN, CHAMPLIN & KELLY, P.A.

Date: April 14, 2003

By: D. D. Brush
David D. Brush, Reg. No. 34,557
Suite 1600 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

DDB:tkj

8 PAGES - INCLUDING COVER PAGE

Receipt is hereby acknowledged by the Assistant Commissioner of
Patents and Trademarks of the following items in the matter of:

Applicant : David D. Koester et al.
Serial No./Patent No.: 09/751,669
Filed/Issued : December 29, 2000
Title/Mark : MACHINING ACTUATOR PERIPHERY TO REDUCE
RESONANCE VARIATION

1. Amendment After Final



Atty/Sec DDB/tkj Date: 3/14/03 File No. S01.12-697

Receipt is hereby acknowledged by the Assistant Commissioner of
Patents and Trademarks of the following items in the matter of:

Applicant : David D. Koester et al.
Serial No./Patent No. : 09/751,669
Filed/Issued : December 29, 2000
Title/Mark : MACHINING ACTUATOR PERIPHERY TO REDUCE
RESONANCE VARIATION

1. Amendment After Final

Atty/Sec DDB/tkj Date: 3/14/03 File No. S01.12-697